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## **Beyond the Plan: Individual Responder and Family Preparedness in the Resilient Organization**

Mark Landahl and Cynthia Cox

The level of preparedness and capability of government and private sector first-response entities to react to disaster rests upon the assumption that the human element, essential employees, will be ready and able to carry out the functions that have been planned, the tasks they have been trained to perform, provided the necessary equipment to complete, and that proficiency has been demonstrated through exercise. The assumption that first responders will report is the foundation of the ability of organizations to maintain continuity and provide essential services to citizens affected by disaster. This raises the question: how solid is our foundation for emergency response in disasters? Studies reviewed in this article show that personal and family preparedness and safety are the predominant issues for first responders in their ability and willingness to report for assignment in a crisis. This raises another question: Are we doing enough to allay the concerns of first responders so that they will clock in at the time we need them most?

This article provides an overview of employee and family preparedness and role of the employer in a resilient organization. Literature related to individual employee and family preparedness and the ability and willingness to report in emergency situations is reviewed as well as the adequacy of current DHS policy in addressing employee preparedness issues. In addition, the results of a survey of homeland security leaders on the issues of employee preparedness as it relates to response capability and organizational resilience will be presented. The overall goal of the paper is to examine the role of the employer in developing and maintaining employee and family preparedness and to identify the general elements of an effective preparedness program in a resilient organization.

As we focus on the ability and willingness of first responders to report as a function of organizational capability it is necessary to define these terms. *Ability* is defined as “whether an individual would be available and have the necessary means to report for duty.”<sup>1</sup> The term *willingness* is defined as “whether an individual would report for duty or respond positively to a request to report for duty.”<sup>2</sup> Current Department of Homeland Security (DHS) preparedness guidance through the *National Preparedness Guidelines* and capabilities-based planning tools (*National Planning Scenarios*, *Universal Task List*, and *Target Capabilities List*) define capability simply as “the means to accomplish the mission.”<sup>3</sup> The guidance also describes a capability as consisting of the following elements: planning, organization and leadership, personnel, equipment and systems, training and exercises, evaluations, and corrective actions. Clearly, the availability of first-response personnel to report for assignment is a core element of capability.

## **RESPONDER ABILITY, WILLINGNESS TO REPORT AND THE FAMILY CONNECTION – PREVIOUS RESEARCH**

The example set in the wake of Hurricane Katrina illustrates the importance of employee preparedness in the ability of response organizations to carry out mission-essential functions. The New Orleans Police Department (NOPD) faced incredible odds in the response to the catastrophe and “lost almost all effectiveness.”<sup>4</sup> There are a number of contributing factors identified in the various official reports that led to the collapse of NOPD; among these was the fact that “missing police officers led to a law enforcement manpower shortage.”<sup>5</sup> Although a percentage of officers were derelict in their duties, the vast majority either became victims themselves or were unable to report because of storm-related personal crises. The U.S. Senate report on Hurricane Katrina estimates that 5 percent of the NOPD forces were stranded at home.<sup>6</sup> The question is what preparedness activities taken by NOPD would have reduced the number of absent officers?

This specific question has not been researched and is not the direct subject of this article, but informs its overall purpose. Although there is no direct research on this subject, there was a noticeable change in the preparation of employees by NOPD during the 2008 hurricane season. In preparation for Hurricane Gustav, which was originally projected for a Katrina-style direct hit on New Orleans, the NOPD gave employees paid time off to prepare and evacuate their families before reporting for duty.<sup>7</sup> Thankfully for New Orleans, but unfortunately for research on the effectiveness of the strategy, Hurricane Gustav gave only a glancing blow to New Orleans. The strategy shift by NOPD itself evidences the importance of prepared employees and families to the overall organizational capability of NOPD.

The direct evidence provided by the strategic shift of the NOPD example is supported by several studies related to family issues and the ability and willingness of first responders to report for assignment. Three studies conducted at the Naval Postgraduate School Center for Homeland Defense and Security in three different first-response disciplines and two different geographic regions yield similar results. A study of police officers in the National Capital Region (NCR) by Nancy Demme (2007) revealed that family preparedness and safety were the determinant factors in the ability and willingness of police officers to report for assignment in a biological incident.<sup>8</sup> A study of the ability and willingness of firefighters in the NCR to respond to a pandemic influenza outbreak by John Delaney (2008) yielded similar results. The study found that the “principal variables affecting fire fighters’ ability to participate in a pandemic centers around family.”<sup>9</sup> A third study by Shelley Schechter (2007) on the ability and willingness of Medical Reserve Corps volunteers in Nassau County, NY to respond revealed that that one of the most significant barriers to the fulfillment of job requirements during a disaster is family responsibilities.<sup>10</sup>

There have been other studies conducted in the first-response field, particularly in public health and healthcare, which reveal common concerns about family as an obstacle to reporting to work. A study by Yaron Shapira and

others (1991) of the willingness of hospital personnel in Israel to report to work in response to an unconventional missile attack drew similar conclusions. The majority of respondents cited the need to care for their family as one of the reasons for their unwillingness to report.<sup>11</sup> A study of healthcare workers at forty-seven hospitals in New York City by Kristine Qureshi and others (2005) revealed that family issues impacted both the willingness (concern for family) and the ability (childcare, eldercare, and pet care) of hospital workers to report for duty.<sup>12</sup> A national study of Emergency Medical Technicians (EMT) by Charles DiMaggio and others (2005) revealed that “concern for family (44.3 percent) led the list of reasons respondents would not be willing to respond to a major bioterrorist, chemical, or nuclear disaster.”<sup>13</sup> An unpublished study by Thomas Nestel (2005) of the ability and willingness of police officers in Philadelphia to respond using the fifteen National Planning Scenarios revealed that based on the given scenario 55-66 percent of police officers reported they would refuse to adhere to an emergency recall or would consider abandoning their position based upon concerns for the safety of their family.<sup>14</sup>

These studies indicate that family and personal preparedness issues are in the forefront of the minds of responders in their decision to report to work in emergencies. The questions revealed in seeking to understand how to counter this concern among first responders are: is the preparedness of individual first responders and their families in the forefront of the preparedness activities of first response organizations? Or are our efforts focused too heavily on preparedness of personnel to perform a tactical response mission (response training, equipment acquisition, and response exercises) that they may not report to complete?

## **DEPARTMENT OF HOMELAND SECURITY PREPAREDNESS GUIDANCE AND EMPLOYEE AND FAMILY PREPAREDNESS**

As discussed in the opening paragraph, current DHS guidance developed under Homeland Security Presidential Directive-8 (HSPD-8): *National Preparedness* measures preparedness in terms of the capability to prevent, protect, respond to, and recover from all-hazards disasters. Capability is defined by the *National Preparedness Guidelines* as “the means to accomplish the mission.”<sup>15</sup> The capabilities-based planning toolbox (*National Planning Scenarios*, *Universal Task List*, and *Target Capabilities List*) defines thirty-seven core capabilities described in the TCL that outline the range of necessary actions to prevent, protect, respond to, and recover from all-hazards emergencies. The question is what guidance does the capabilities-based planning process provide for employee and family preparedness?

Of the thirty-seven capabilities, none deal directly with the individual and family preparedness of responders. In the TCL each of the thirty-seven capabilities is defined, the expected outcome is stated, and performance tasks and measures/metrics for capability achievement are delineated. Although the individual preparedness of responders and families are not specifically grouped into a single capability there are several associated capabilities that contain

elements necessary for achieving employee and family preparedness. The three most closely associated capabilities are Community Preparedness and Participation, Responder Safety and Health, and Mass Care (Sheltering, Feeding, and Related Services). The expected outcomes for each of these capabilities are described below in Table 1.

**Table 1: Capability Outcomes<sup>16</sup>**

<b>Capability</b>	<b>Outcome</b>
Community Preparedness and Participation	There is a structure and a process for ongoing collaboration between government and nongovernmental resources at all levels; volunteers and nongovernmental resources are incorporated in plans and exercises; the public is educated and trained in the four mission areas of preparedness; citizens participate in volunteer programs and provide surge capacity support; nongovernmental resources are managed effectively in disasters; and there is a process to evaluate progress.
Responder Safety and Health	No illnesses or injury to any first responder, first receiver, medical facility staff member, or other skilled support personnel as a result of preventable exposure to secondary trauma, chemical/radiological release, infectious disease, or physical and emotional stress after the initial incident or during decontamination and incident follow-up.
Mass Care (Sheltering, Feeding, and Related Services)	Mass care services, including sheltering, feeding, and bulk distribution, are rapidly provided for the population and companion animals within the affected area

The outcome and activities described for each capability outlined in Table 1 do not delineate special considerations or guidance that impacts first responder ability and willingness to report for assignment. Several of the capabilities do, however, begin to address some of the underlying conditions. Are these disparate elements sufficient to ensure that first responders will leave their families and report for assignment in challenging conditions? This is a critical issue as all of the response capabilities outlined by the TCL rest on the assumption that personnel required to perform these tasks will report for assignment.

The Community Preparedness and Participation capability is the most closely associated capability as it seeks a populace educated and trained in the four preparedness mission areas. Training is an essential element in preparedness. The training of the general populace, however, has fewer requirements than those needed for first-response personnel and their families who need more than to simply avoid becoming victims and maintaining basic necessities; they must be able to report for assignment in dire conditions. One of the planning assumptions in the TCL description for this capability is “professional responders and volunteers may get ill or fail to participate as expected due to fear of getting sick, or perceived greater need to care for their own families.”<sup>17</sup> Although it is assumed

in the TCL that responders and volunteers may have a perceived greater need to care for their families, there is nothing described within this capability to counter or attempt to minimize the impact of family concerns on the ability and willingness of responders to report. This is a critical element of our overall preparedness, identified as a planning assumption, but any method for potentially mitigating the problem is absent from the guidance.

The Responder Safety and Health capability seeks an outcome where the responder does not become the victim of any secondary injury or exposure. This outcome and associated activities, including ensuring appropriate personal protective equipment, monitoring post-incident health, etc., addresses some of the underlying concerns of responders who fear that exposure to hazardous and/or contagious substances at work may be spread to families. Responders who are properly trained, equipped and exercised under this capability may be more *willing* to report for assignment, but the capability does not address many of the issues tied to the *ability* of responders to report.

The Mass Care Capability strives to provide shelter, food, and bulk distribution for populations and companion animals within an area affected by disaster. Although not specifically delineated among the previously identified research, it is a reasonable conclusion that the individual safety and access to adequate food and shelter for family members would be a concern of first responders. Similar to the Community Preparedness and Participation capability, planning assumptions are identified that show understanding of the concerns of first responders. The planning assumptions state: “As a result of the incident, many local emergency personnel – paid and volunteer – that normally respond to disasters may be dead, injured, involved with family concerns, or otherwise unable to reach their assigned posts.”<sup>18</sup> Of elements outlined in the assumption about first responders, death, injury, family concerns or inability to reach assigned posts, only family concerns can be mitigated. The TCL falls short in providing guidance in addressing the family concerns of responders. In fairness, “family concerns” could be construed to include a wide variety of issues that could include anything from the death of a family member in the disaster to simply needing food and shelter for family members. The latter is more simply achieved, while the former is impossible to address in an effort to encourage responders to report.

There is a clear disconnect between what responders describe as issues affecting their ability and willingness to report and preparedness guidance that does not begin to address the issue. The TCL does not adequately address the underlying conditions that are necessary for successful disaster response: the ability and willingness of employees to report for tactical assignment. Overall these capability outcomes describe several elements of what could be pulled together to define a First Responder and Family Care and Preparedness Capability. Can the issue of first responder and family preparedness be adequately addressed through modification of the critical tasks and outcomes of the three identified capabilities in the current guidance, or does a specific capability need to be developed? Are we truly prepared if we have not addressed the conditions that may cause our responders to fail to report or abandon posts in a disaster? The guidance recognizes these as planning assumptions, but what do



we do about them? In this case the preparedness guidance falls short of getting to actual preparedness.

## **EMPLOYEE AND FAMILY PREPAREDNESS: A SURVEY OF HOMELAND SECURITY LEADERS**

A survey of graduates and current participants in the Naval Postgraduate School's Center for Homeland Defense and Security (CHDS) master's degree and executive leaders programs was conducted to gather information and opinions concerning employee preparedness and its role in organizational preparedness and resilience. The purpose of the survey was twofold. First, it provided an exploratory view of agencies' efforts to prepare employees and families; e.g. the existence of written plans to support employees and families in disaster, and the content and frequency of training programs targeted at employee and family preparedness. With limited research in the area, gathering this information was an important first step. Second, the survey collected data concerning the opinions of homeland security leaders on the role of employers in building and sustaining employee and family preparedness. This was important in discerning the level of problem recognition among the group and its correlation to existing plans and training in agencies.

The survey was conducted over the three-week period prior to the 2009 CHDS Annual Alumni Conference. A web link to the online survey was posted to CHDS discussion boards and distributed via broadcast emails to approximately 325 former and present program participants. Participation in the survey was voluntary and concluded with ninety-seven respondents. This particular audience was chosen initially as a matter of practicality; with a limited time frame and resources to conduct a formal study, the Center provided access to a significant target audience. It also allowed the authors a quick and convenient means to survey senior homeland security officials, emergency management leaders, and responders across the spectrum of disciplines and geographic regions, as well as the opportunity to engage them in pre- and post-conference discussion forums on the topic of employee and family preparedness. CHDS program participants are generally not typically representative of the larger homeland security community individually or organizationally. Individually they have been exposed to a broader curriculum of study than the average homeland security professional through participation in the program. They also represent homeland security organizations that are generally more progressive, demonstrated by their commitment to sponsor employees through the CHDS program.

Using an online survey tool, the questionnaire was composed of thirty-eight multiple choice questions in four core areas:

- Participant and Organization Demographics
- General Organizational Emergency Preparedness
- The Organization and Employee and Family Emergency Preparedness
- The Role of the Employer in Employee and Family Emergency Preparedness

## **Participant and Organization Demographics**

Participants in the survey represent the wide variety of disciplines in the homeland security community. Specifically, emergency management and homeland security (24.2 percent), law enforcement (22 percent), military, fire, public health and medical, in that order, were the largest individual groups represented, with a few responders from private industry, public administration, transportation, and education. Emergency medical services was listed as a specific discipline and surprisingly had few representatives (3.2 percent); however, the inclusion of medical and public health as a separate discipline, and dual-role positions such as firefighter/EMT, may account for more emergency medical responders participating than the survey indicates.

The majority of survey participants hold senior management positions in their agencies (51.6 percent), followed by mid-management (25.3 percent), with the remainder filling various agency roles including supervisors, staff, responders, and others. The number of respondents in senior leadership positions is significant since these are the decision makers who are typically responsible for agency policy, strategic planning, and new program development. These individuals also control organizational resources that can be applied to solving recognized problems.

The majority of organizations represented included federal (32.6 percent), state (24.2 percent), and local (29.5 percent) government agencies, with 5,000 or more employees (37.9 percent) being the most common. Most organizations are in communities with populations over 750,000 (76.8 percent) and 50.5 percent had three or more local, state, or federal disaster declarations in the past five years.

## **General Organizational Emergency Preparedness**

Participants were asked about the general emergency preparedness training and education provided by their organizations. Participants reported these courses are provided by FEMA, state and local homeland security agencies, the organization itself, or others that focus on the response and actions of the organization and the individual as a part of a team during emergencies. In addition, participants reported:

- 65.9 percent of organizations provide general emergency preparedness training and education opportunities for employees.
- 55 percent of organizations require employees to attend general emergency preparedness training.
- 74.6 percent of organizations do not offer any type of incentives for attending general emergency preparedness training.
- 52.5 percent of the survey participants felt that incentives would increase employee participation in emergency preparedness education and training in their organization.



- 43.3 percent report that general emergency preparedness training is offered at least annually by their organization, most often during regular in-service activities.
- General preparedness training and education is presented using a variety of methods including online courses, onsite courses, self study and in-service training opportunities, and various formats including web-based and/or face-to-face instruction, video, and print materials.
- Coordination of general emergency preparedness training is usually an additional duty of a regular staff member (54.1 percent). Less than half (45.9 percent) reported having a dedicated full-time staff member to coordinate general emergency preparedness training.

### **Organizations and Employee and Family Emergency Preparedness**

Participants were asked about their organizations and the existence of policies, plans, and education and training related to employee and family emergency preparedness. Participants reported:

- 46.8 percent of organizations have written plans or policies in place to support employees only (food, shelter) during large-scale disaster operations.
- 29.2 percent of organizations have written plans or policies in place to support employee families (food, shelter) during a large-scale disaster.
- 29.1 percent of organizations provide training and education for employee and family preparedness.
- Of those that do offer family emergency preparedness training, 85.3 percent report that participation is voluntary.
- 70.3 percent of the organizations do not offer opportunities for employee or family members to attend emergency preparedness training or education events hosted by the organization.

### **The Employer's Role in Employee and Family Emergency Preparedness**

Survey participants were asked to give their opinions regarding the role of the employer in employee and family preparedness and the relation of employee and family preparedness to organization resilience during large scale emergencies. Ninety-seven percent of respondents agreed that employee and family preparedness is an essential element in organizational resilience during large-scale emergencies.

Participants were also asked their opinion on the role of the employer in employee and family preparedness based on a progressive four-option scale of organizational responsibility. The scale proceeded from (1) no obligation to employee and family preparedness, to (2) encouraging employee and family preparedness by providing the opportunity through education and training, (3) mandating training, and concluded with (4) mandating training and the inclusion of personal and family preparedness through performance evaluations (where

allowed by law and/or negotiated labor agreement). The results to this question are shown below as percentage of the all respondents (totaling 100 percent).

- (1) 1.2 percent agreed that employer has no obligation to employees and families in their personal preparedness.
- (2) 52.9 percent agreed the employer should encourage employee preparedness by providing the opportunity for education and training in personal and family preparedness.
- (3) 20.0 percent agreed that the employer should require employee preparedness by providing mandatory education and training in personal and family preparedness.
- (4) 25.9 percent agreed that the employer should provide mandatory education and training to employees, and encourage family and personal preparedness through inclusion in performance evaluations or incentives.

Additionally, participants were asked to select the statement that best described their opinion on the role of the employer in relation to essential employees and their families during the response phase of a large-scale emergency based again on a progressive four-option scale of organizational responsibility. The scale proceeded from (1) no additional responsibility for the employer, to (2) employer responsibility ends at encouraging employee and family preparedness by providing the opportunity through pre-emergency education and training, (3) the employer should be prepared to assume some responsibility for the care of essential employees *only*, and concluded with (4) the employer should be prepared to assume some responsibility for the care of essential employees *and* their families.

- (1) 3.3 percent felt the employer has no additional responsibilities to essential employees and their families during the response phase to large-scale emergencies.
- (2) 22.4 percent believed employer responsibility ends at encouraging preparedness and providing pre-emergency training and resources for personal and family preparedness.
- (3) 22.4 percent felt the employer should be prepared to assume some responsibility for the care of essential employees only during large-scale emergency response and recovery operations to include provision of food and shelter.
- (4) 52.9 percent responded the employer should be prepared to assume some responsibility for the care of essential employees and their families during large scale response and recovery operations to include provision of food and shelter.

## **SURVEY CONCLUSIONS**

The survey results provide a snapshot of organizational activities and attitudes and opinions of homeland security leaders on the topic of employee and family emergency preparedness. While the survey was not designed to illustrate causal relationships, it provides needed baseline information about a topic where little exists. The key takeaway from the survey is that homeland security leaders generally (97 percent) recognize that employee and family preparedness is an essential element to organizational resilience during large-scale emergencies and a majority (52.9 percent) report that the organization should be prepared to assume some responsibility for the care of essential employees and their families. According to survey data there is a fundamental disconnect between problem recognition by homeland security leaders and organizational activities; only 29 percent of participants reported their organizations had conducted training in or had written plans to support employees and families during disaster.

The data also reveals an interesting paradox in how to address the issue. The majority (52.9 percent) reported that the employer responsibility ends at encouraging employee preparedness by providing the opportunity for education and training in personal and family preparedness. If, as the survey data suggests, employee and family preparedness is central to organizational capability and preparedness, can organizations afford to simply encourage?

### **EMPLOYEE AND FAMILY PREPAREDNESS AND THE RESILIENT ORGANIZATION: RECOMMENDED PRACTICES**

The reviewed research indicates that individual and family preparedness and the ability and willingness of responders is a significant issue in the decision of responders to report for duty in disasters. The collected survey data shows that the problem is understood by leaders in the field of homeland security as 97 percent agree that employee and family preparedness is an essential element to organizational resilience during large-scale emergencies and 52.9 percent of respondents indicated that organizations should be prepared to assume some responsibility for the care of essential employees and their families during large-scale response and recovery operations to include food and shelter. The problem is that only 29 percent of the respondents reported their organizations had written plans to support the families of responders. This may be attributed to the lack of policy guidance in current DHS preparedness policy, a focus on prevention and response capabilities, or a lack of organizational resources directed toward the problem. The problem is clear; the solutions are not as easily defined.

This article will fall short of delineating a definitive set of “best practices,” as it is the opinion of the authors that further research is necessary. This section is presented in an effort to stimulate a critical discussion that will lead to the development of true best practices for responder and family preparedness. There may be significant differences in how to approach the problem based on response discipline, geographic region, and/or local threat profile. Although there are still many unknowns in fully addressing this issue, it is prudent to present

consolidated recommendations from reviewed studies to begin the discussion on the development of best practices.

In several of the reviewed research studies the authors provide recommended actions for enhancements that would result in greater reporting rates for responders. The studies suggest actions that are broadly focused on the full spectrum of issues that influence responder ability and willingness to report. This article reviews and evaluates only recommendations pertinent to individual responder and family preparedness. In addition to recommendations from previous research, the problem was also examined and suggested courses of action evaluated in a focus group convened as a breakout session of the 2009 Naval Postgraduate School Center for Homeland Defense and Security Alumni Conference. The results constitute the initial salvo in a continuing effort to define “best practices” for organizations to increase responder and family preparedness.

The studies and events examined in this article propose a set of recommendations that, if implemented, may assist in increasing the report rate of first-response personnel in disasters. It is likely that there may be differences in application of solutions to the problem in different responder disciplines and geographic regions based upon the community threat profile. Further research is necessary in this area. As response agencies examine the results and recommendations of these studies they should consider conducting their own research of the attitudes and preparedness characteristics of their personnel. The recommendations will be divided into pre-incident and response-phase activities and examined across three levels of organizational responsibility for responder and family preparedness that will be explored in the following section.

## **DETERMINING THE LEVEL OF ORGANIZATIONAL RESPONSIBILITY FOR RESPONDER AND FAMILY PREPAREDNESS**

The several studies reviewed indicate there is a potentially serious problem with first responders reporting for assignment in the event of disaster. There is no “magic bullet”; this is a multi-faceted problem that has several overlapping and underlying issues that, if even partially addressed, may increase responder reporting rates. Examining policy recommendations from the many studies can be combined to form the basis of a strategic approach to problem mitigation.

There is a critical two-part policy question that agencies and/or first response communities (cities, counties, and states, hereafter referred to as organizations) need to address before engaging options for mitigation. The critical question is: what level of commitment does the organization want to make to involvement in the personal and family preparedness of its responders (1) pre-incident and (2) during the response? In the survey of CHDS program participants these two questions were posed to solicit opinions on how agencies should be involved in each of these based on progressive scales. These scales can also be utilized to delineate options for organizations in determining their expected level of involvement in individual responder and family preparedness. The scale for the pre-incident role of the employer is detailed below in table 2.

**Table 2: Options for the Pre-incident Role of the Employer in Responder and Family Preparedness**

<b>Level of Organizational Responsibility</b>	<b>Description</b>
<b>None</b>	The employer has no obligation to employees and families in their personal preparedness.
<b>Low</b>	The employer should encourage employee preparedness by providing the opportunity for education and training in personal and family preparedness.
<b>Moderate</b>	The employer should require employee preparedness by providing mandatory education and training in personal and family preparedness.
<b>High</b>	The employer should provide mandatory education and training to employees, and encourage personal and family preparedness through inclusion in performance evaluations or incentives. (where not limited by state/local law or negotiated agreement)

The research indicates that the option for employers to have no responsibility in the pre-incident preparedness of responders and their families is ill-advised. Selecting a low, moderate, or high level of organizational involvement in developing employee and family preparedness may depend on the risk-tolerance, resources, and/or community/organizational relationship with employees. The policy decision on the level of organizational involvement is critical in evaluating the applicability of pre-incident recommended actions that follow.

**Table 3: Options for the Role of the Employer in Responder and Family Preparedness during the Response to Disaster**

<b>Level of Organizational Responsibility</b>	<b>Description</b>
<b>None</b>	The employer has no additional responsibilities to essential employees and their families during the response phase to large-scale emergencies.
<b>Low</b>	The employer responsibility ends at encouraging preparedness and providing pre-emergency training and resources in personal and family preparedness.
<b>Moderate</b>	The employer should be prepared to assume some responsibility for the care of essential employees only during large-scale emergency response and recovery operations to include food and shelter.
<b>High</b>	The employer should be prepared to assume some responsibility for the care of essential employees and their families during large-scale response and recovery operations to include food and shelter.

The answer to the second part of the policy question concerning the level of organizational responsibility for employees and families during the response to large-scale emergencies (Table 3) is also a necessary first-step in examining options for implementation. A high degree of organizational responsibility in assuming some obligation for employees and families will require significant resources to undertake at a time when community resources are likely to be scarce. Again, based on the conclusions of the previous research it would be imprudent to dismiss organizational responsibility in the preparedness of responders and their families. Organizational resources may not allow for a high degree of commitment, but there are steps that can be taken to reduce the scope of the problem to a level of risk-tolerance appropriate for the organization.

There is also a policy question of how to handle this problem across first response disciplines within a community. Should each response agency consider this problem in isolation? Or should this issue be handled across the response disciplines in a community at the municipal, county, regional, or state level? The governmental structure of the community, recognition of the problem by community and response discipline leaders, and community hazard profile may all contribute to determining the appropriate level and organizational responsibility for this issue within a community.

## **RECOMMENDATIONS BASED ON LEVEL OF ORGANIZATIONAL RESPONSIBILITY FOR EMPLOYEE AND FAMILY PREPAREDNESS**

In this section recommendations for policy and plans that organizations may implement to potentially mitigate the problem at various levels of organizational responsibility for employee and family preparedness will be explored. Several of the reviewed studies present recommendations related to organizational policy and planning for responders and families in two phases of incidents: the Pre-incident and Incident Response phases of disasters. These recommendations and results of discussions from the 2009 CHDS Annual Alumni Conference will be examined.

The study of Medical Reserve Corps volunteers by Schechter revealed that the assurance that their family would be cared for was identified as the most important factor in enabling them to respond.<sup>19</sup> This conclusion is echoed by several of the other identified studies and forms the basis for getting people to report during disaster. There is both a pre-incident and incident response policy and planning component to this problem. The pre-incident policy and planning component will be discussed progressing from the low to moderate to high level of organizational responsibility. This level is defined by creating the framework and opportunity for employee and family preparedness without the organization assuming any burden during disaster response operations.

As we continue to examine this topic we will proceed with the assumption that the notional organization discussed has taken basic preparedness steps consistent with current DHS preparedness guidance. This includes the existence of an all-hazards response plan consistent with the *Comprehensive Planning Guide* and the *National Incident Management System*, necessary training has



been conducted and required equipment has been obtained to ensure responders have the necessary skills and equipment to perform required capabilities, exercises have been performed and evaluated, and corrective actions have been implemented. Beginning with this assumption allows for a more focused discussion of the issue of responder and family preparedness. While it is unreasonable to believe that all agencies have fully implemented all aspects of DHS preparedness guidance, we can reasonably assume that the process has been engaged at some level by most agencies. Although some general preparedness elements will be highlighted, the intention is to move the discussion beyond general preparedness to identify elements to mitigate gaps between DHS preparedness guidance and the anticipated actions of responders identified in the research.

### **Pre-Incident Phase: Recommendations for Responder and Family Preparedness**

The primary pre-incident policy issue is fostering an environment where personal and family preparedness becomes a cultural element of the organization. Although described in the planning assumptions of the planning target capability outlined in the TCL, a first critical step is ensuring response plans have been shared with affected personnel. Demme's study of police officers in the NCR revealed that many of the respondents did not have knowledge of biological incident response plans they were expected to be involved in implementing.<sup>20</sup> This is a basic first policy step in developing the transparency that is necessary for responders at the lowest level to develop an understanding of the range of duties they will be tasked with in disaster situations. If emergency or alternative staffing plans have been developed, these must also be shared with responders. If we are asking responders to be prepared at home, they need to understand the full scope of their expected duties to determine the potential impact on their families. In addition to the study by Demme, this recommendation is also made by other studies including the 2005 study of healthcare workers by Qureshi and others.

Once transparency is established through sharing plans, responders need to have the tools to successfully build their personal and family preparedness. This is developed through training. Most of the DHS-sponsored training is focused on management-level planning and tactical response knowledge, skills, and abilities for which local expertise does not exist in most communities. There is a gap in responder and family preparedness training that is not a DHS issue, but needs to be a locally developed and locally focused. The content should be driven by the organizational decision regarding the level of involvement in responder and family preparedness. Responders may not necessarily know to ask the question concerning the relationship between the organization and their families pre-incident, as they are focused on the day-to-day issues of their positions; the organization has to recognize the findings of the research and relay to personnel, before the disaster, the expectations and anticipated relationship with responders and their families. This can be accomplished through delivering personal and family preparedness training tailored to the expectation of the organization.

DHS/FEMA through its independent study program the DHS Ready campaign and the American Red Cross through its personal and family preparedness materials, provide a baseline that can be adopted and modified to meet local needs.

Communicating the organizational expectation, then providing the tools for responders and families to prepare is the next critical step. For organizations/response disciplines that have annual training requirements, the greatest benefit to the organization can be realized at minimal cost provided that personal and family preparedness training is incorporated into mandated training requirements. Training is necessary to both “prepare practically and psychologically” for the response.<sup>21</sup> The importance of training is supported by a study of preparedness training for public health nurses that found a 12 percent increase in their intentions to report for assignment after attending training.<sup>22</sup>

At the moderate to high level of organization responsibility the involvement of families in organization preparedness efforts should also be considered. Both Demme and Delaney recommend engaging responder families early in the preparedness process. Delaney states “Involving families early in planning a response, educating the entire family, and encouraging families to develop a sheltering plan and stockpile supplies...will help to alleviate fire fighters’ concerns for their families’ wellbeing.”<sup>23</sup> Engaging families in an honest conversation about expectations of responders and the relationship between the organization and families in disaster response operations is important to extending transparency. Involving families early in the process, sharing plans as appropriate, and extending preparedness training to families of responders are necessary steps toward problem mitigation.

Another critical pre-incident policy issue – at all levels of organizational responsibility – is ensuring responders are equipped with appropriate Personal Protective Equipment (PPE). Many of the studies examined identify responder willingness to report is impacted by fears of their own personal safety and that of their family. Although we have previously identified an assumption about agency engagement of the capabilities-based planning process and introduced the Responder Safety and Health target capability, this issue of PPE is critically important; it has appeared as a finding and/or recommendation in several of the identified studies (Demme, Shapira, and Qureshi and others). Responders issued and comfortable with the use of PPE may be less apprehensive about their safety and the safety of their families, particularly in the response to biological-related incidents when the potential exists to transmit illness from responders to family members.

Another recent study of hospital personnel in an avian influenza pandemic (not previously referenced) supports this conclusion. The study highlighted the “importance of providing adequate protection for the workforce may be very helpful in minimizing absenteeism.”<sup>24</sup> The study of Israeli hospital workers by Shapira and others also supports this recommendation; 86 percent of respondents advised they would report for assignment if adequate safety measures were in place.<sup>25</sup> Properly equipping responders for likely hazards is an essential step in reducing fears of the transmission of illness to family members.

The pre-incident organizational commitment at the low level of responsibility for responder and family preparedness ends at this point. The expectation has been communicated and the opportunity for training has been provided, but not mandated. The moderate level of organizational responsibility mandates responder and family preparedness training and utilizes other strategies to institutionalize pre-incident responder and family preparedness. These steps can include backing training with a focus on preparedness reinforced by managers and supervisors at the unit level. Unit-level preparedness can be developed and maintained through periodic review of emergency plans at staff meetings or roll-call trainings that supervisors can then link to the family preparedness of their staff.

The high level of organization responsibility extends pre-incident responsibility to include individual and family preparedness in employee performance evaluations. This recommendation was advanced by Qureshi and others in suggesting that the “presence of a workplace personal emergency plan should be noted on annual performance appraisals.”<sup>26</sup> Performance appraisals communicate and reinforce agency policy and expectations of employees. A cultural shift to an emphasis on personal and family preparedness would be communicated and reinforced by utilizing the performance appraisal system.

In this section recommended activities at the three levels of organizational responsibility for responder and family preparedness were examined. These include policy, equipment, training, and communications recommendations that require varying levels of organizational resources to implement. The recommendations form the basis of pre-incident activities that are necessary for success in the incident response phase.

### **Response Phase: Recommendations for Responder and Family Preparedness**

In the response phase responder and family preparedness is an element of only the moderate and high levels of organizational responsibility. As we discuss recommendations for the response phase, elements will be examined that require planning and policy in the pre-incident phase. The flow of information between the phases makes it more appropriate to discuss these items as related to the response phase, although there will be many activities required in the pre-incident phase to successfully implement the recommendations.

The moderate level of organizational responsibility in the response phase is characterized by assuming some responsibility for the care of essential employees during disaster. At this level the organizational commitment for care does not broaden beyond the individual responder. The organizational responsibility for responders extends to providing basic food and shelter for responders, ensuring their ability to report and remain at work with proper rest and nutrition during a disaster. Achieving this goal requires pre-incident planning and additional resources during the response. In response operations under the Incident Command System (ICS) logistical support for responders including “food and hydration service, sleeping, sanitation and showers” are considered in on-site incident management.<sup>27</sup> Local plans must determine and communicate to

responders the extent of logistical support during responder off-duty hours in local emergency situations. Responders must know if they are expected to return home following a shift or have the option to remain at work and be fed and sheltered until the next shift. Depending on the nature of the emergency, such as in the response to Hurricane Katrina, responders may have nowhere else to go. Demme outlined the need for shelter options in the response to biological agents, as responders may be “willing to report to work, but are not willing to return home after a tour of duty, out of fear of contaminating their family.”<sup>28</sup> The organization needs to determine the extent of the support they will provide to responders, ensure that plans are developed that include necessary resources, and communicate those plans to responders and their families.

The high level of organizational responsibility is characterized by the assumption by organizations of some responsibility for the care of essential employees and their families during large-scale response and recovery operations to include food and shelter. This statement is qualified by the term “some responsibility.” The statement will be interpreted to cover a range of recommendations that all demonstrate a high level of organizational responsibility, some requiring a larger commitment of organizational resources to accomplish. The recommendations will be examined starting with the least intensive options and move to options that require more resources.

The studies by Delaney, Demme, Qureshi and others (2005), and Shechter each present several recommendations that vary with regards to the level of commitment of organizational resources. Delaney and Qureshi and others present similar network-based recommendations that vary only slightly and draw on resources in differing levels. Delaney recommends the development of department-level support networks that are “station-based and are led by the spouse of one of the members assigned to that station.”<sup>29</sup> The goal would be to “develop a support network for all of the families assigned to that station or shift, so that in an emergency there is an established group that can assist or be called upon at anytime.”<sup>30</sup> In this recommendation the need for family care is recognized, but the burden is shifted to a network of employees and families to provide assistance to one another. The organization is limited to supporting a position in each station, perhaps by stipend.

Qureshi and others recommended “facilitating the formation of emergency childcare/eldercare pools, with staff scheduled in such a way that sharing these responsibilities are possible”<sup>31</sup> The recommendations of Delaney and Qureshi and others represent the low end of organizational responsibility for responder and family preparedness in the response phase. In these recommendations the organization serves as a facilitator in the response phase to enable responders to care for one another with limited impact on the organizational resources.

Action recommended by Demme and Schechter represent the next step in organization responsibility (moderate level) for responder and family preparedness that requires more resources. Demme recommends the development of a Family Support Unit (FSU) that would be “staffed with officers who no longer have a work assignment as a result of the bio-incident, such as, school resource officers, crossing guards, and court officers.”<sup>32</sup> The FSU would

function to push needed support out to families, so that officers would remain at work and the families of those who choose to remain away for fear of spreading illness would have a mechanism for their families to be supported at home. Demme states that to “ensure that officers would remain at work, the government would have to demonstrate that the families would be taken care of (i.e., food, medical needs, etc).”<sup>33</sup> The FSU puts more burden upon the organization than the model proposed by Delaney. The FSU would have to be supported by broad logistical capabilities to ensure access to the range of necessary commodities. The larger organizational commitment required for the FSU also likely ensures greater reliability and potential success.

Schechter also recommended, but did not describe in detail, a support service program for the Medical Reserve Corps (MRC) that includes “planning for sheltering, ‘at-home’ support for dependents and pets and a plan for provision of protective measures for the families of volunteers.”<sup>34</sup> The primary goal of the program is to ensure “that caring for the responder’s resource needs is the first priority of the organization and primary to the ability of the MRC member to perform any other community work.”<sup>35</sup> Qureshi and others also provided recommendations at the moderate level of organizational responsibility in the healthcare facility making arrangements with “local veterinarians or animal shelters for emergency pet care”<sup>36</sup>

The issue of companion animal care was raised in several studies and has been a broadly recognized issue in sheltering populations in the wake of Hurricane Katrina. In a 2006 study of hospital disaster staffing by David Cone and Bethany Cummings pet care ranked higher (33 percent) in “support needs that would enable respondents to stay at the hospital for prolonged periods if met” than both child care (30 percent) and adult/elder care (6 percent).<sup>37</sup> This illustrates the importance of the demographic of the responders expected to be served by family programs. There could be a number of factors including the age, marital status, presence of child/elder care responsibilities, and geographic dispersion of employee residences that are critical for the organization to understand in designing programs. The recommendations of Demme, Schechter, and Qureshi and others represent the middle-ground of organizational responsibility for responder and family preparedness in the response phase.

One recommendation proposed by Qureshi and others has already been examined (emergency child/elder care pools); however, their study provided two options. The second option presented in the study was “pre-planning for the formation of emergency childcare or eldercare centers that are either on or off-site.”<sup>38</sup> Although the study identified the first option as preferable, the second option provides an avenue to discuss the highest level of organizational responsibility during the response phase. The previous moderate options seek to push resources out to families, while this option pulls family members in and makes the organization fully responsible for their care.

It would be reasonable to think that the likelihood of responders to report may increase if family members would be cared for and safe during their shift. The support for this strategy comes from the study of Philadelphia Police Officers by Nestel that indicated based on the fifteen scenarios between 72 and 81 percent of



officers indicated that shelters established for police officers families would encourage them to participate in the response.<sup>39</sup> The study by Demme also found that officers “suggested that if there was some place they could drop their spouses and kids off where they would be safe, then they could freely go to work.”<sup>40</sup> The establishment of shelters for the families of responders is both resource-intensive and potentially politically divisive. If shelters are established for the families of responders in an environment of scarce resources there could be political ramifications for providing care to the families of responders that may not be available to the general public. The issue is in need of further focused research.

In this section recommended activities at the high level of organizational responsibility for responder and family preparedness were examined. The recommendations cover a range of activities from creating a framework for family support with the dedication of limited organizational resources to the complete care provided by the organization that requires the commitment of significant resources. There is obviously no ‘magic bullet’ to this problem and the only sure element is that continuing broad discussion of options and political issues must take place.

## SUMMARY

The issue of responder and family preparedness is “just below the radar” in our national preparedness efforts. In reviewing several studies and determining the ability and willingness of responders to report for assignment in disaster a consistent theme emerges: families matter. The results point to a disconnect between the focus of national preparedness policy and the thoughts of responders when making the decision to report to work. The decision is not entirely based on having operational training, equipment to perform the tactical mission, and exercises to demonstrate proficiency, but also involves what is going to happen to family when responders walk out the door, or come back in after dealing with a disaster. The problem is multi-faceted and in need of further study and analysis. The issue has not been the direct subject of research, but appears as a consistent factor across response disciplines and geographic areas.

In this article the issue was examined to include an analysis of options for mitigation presented in disparate studies. The options were examined as pre-incident and incident-response phase activities that required varying levels of organizational responsibility for responder and family preparedness and care. The level of organizational responsibility ranged from the employer simply providing the opportunity for responders to prepare themselves through policy and training at the low level to a high-level organizational commitment requiring significant resources to push needed items to responder families or pull families in to organization-established shelters.

As response organizations examine the results and recommendations of these studies they should consider conducting their own research of the attitudes and preparedness characteristics of their personnel. The key is organizational understanding of its employees, their demographics, and geographic dispersion. It is recommended that organizations undertake evidence-based studies before



considering the commitment of substantial resources to the preparedness of responders and potential care of their families during the response phase. There may be extreme differences in responder populations based on regional characteristics, response disciplines, and/or employee demographics that may radically shift recommended actions within a locality.

In reviewing the research and DHS preparedness guidance it is obvious that the issue has not reached the stage of broad recognition. The role of the individual employee and family preparedness in overall organization preparedness and resilience may be the “soft underbelly” of post-9/11 preparedness and response efforts. Perhaps, as was recognized by NOPD following Hurricane Katrina, we need a national strategic shift in our preparedness efforts to focus on the underlying conditions that impact the decision of first responders to report for assignment.

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## NOTES

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<sup>2</sup> Ibid.

<sup>3</sup> U.S. Department of Homeland Security, *National Preparedness Guidelines* (Washington, D.C.:2007), 4.

<sup>4</sup> U.S House of Representatives, Select Bi-Partisan Committee to Investigate the Preparation for and the Response to Hurricane Katrina, *A Failure of Initiative: Final Report of the Select Bi-Partisan Committee to Investigate the Preparation for and the Response to Hurricane Katrina* (Washington, D.C.: GPO, 2006), 245.

<sup>5</sup> Ibid., 246.

<sup>6</sup> U.S. Senate, Committee on Homeland Security and Governmental Affairs, *Hurricane Katrina: A Nation Still Unprepared* (Washington, D.C.: GPO, 2006), 23.

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- <sup>14</sup> Thomas Nestel, "First Responders: Will They Be There When We Need Them" (working paper – Philadelphia Police Department, 2005).
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- <sup>30</sup> Ibid.
- <sup>31</sup> Qureshi and others, *Healthcare Workers*, 386
- <sup>32</sup> Demme, *Government Expectations*, 61.

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<sup>33</sup> Demme, *Government Expectations*, 63.

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<sup>38</sup> Qureshi and others, *Healthcare Workers*, 386

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<sup>40</sup> Demme, *Government Expectations*, 35.